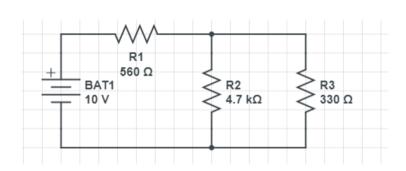


$$R_6 = \frac{1}{\frac{1}{560\Omega} + \frac{1}{4700\Omega} + \frac{1}{330\Omega}}$$

$$R_6 = \frac{4342800}{21839} \Omega$$

$$R_6 = 198.855\Omega$$

$$R_{TH} = R_6 + R_4 \\ R_{TH} = 198.855\Omega + 100\Omega \\ R_{TH} = 298.855\Omega$$



$$R_{eq1} = \frac{1}{\frac{1}{R_2} + \frac{1}{R_3}}$$

$$R_{eq1} = \frac{1}{\frac{1}{4700\Omega} + \frac{1}{330\Omega}}$$

$$R_{eq1} = \frac{1}{\frac{1}{4700\Omega} + \frac{1}{330\Omega}}$$

$$R_{eq1} = \frac{1}{\frac{1}{4700\Omega} + \frac{1}{330\Omega}}$$

$$R_{eq1} = \frac{1}{\frac{1}{4700\Omega} + \frac{1}{308.34}}$$

$$V_{TH1} = \left(\frac{R_{eq}}{R_T}\right) \cdot V$$

$$V_{TH1} = \left(\frac{308.34\Omega}{868.35\Omega}\right) \cdot 10 V$$

$$V_{TH1} = 3.55 V$$

$$R_{eq2} = \frac{1}{\frac{1}{R_1} + \frac{1}{R_2}}$$

$$R_{eq2} = \frac{1}{\frac{1}{560\Omega} + \frac{1}{4700\Omega}}$$

$$R_{eq2} = 500.38\Omega$$

$$R_{T2} = R_{eq2} + R_3$$

$$R_{T2} = 830.38\Omega$$

$$V_{TH2} = \left(\frac{R_3}{R_{T2}}\right) \cdot V$$

$$V_{TH2} = \left(\frac{330\Omega}{830.38\Omega}\right) \cdot 2 V$$

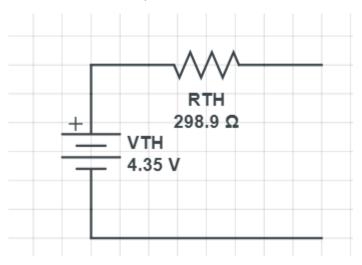
$$V_{TH2} = 0.795 V$$

$$V_{TH} = V_{TH1} + V_{TH2}$$

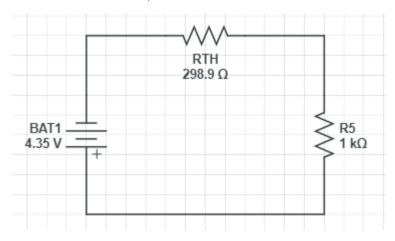
$$V_{TH} = 3.55 V + 0.795 V$$

 $V_{TH} = 4.35 V$ 

## Circuito Equivalente de Thévenin



## Circuito Equivalente de Thévenin + R5



$$R_{eq3} = R_5 + R_{TH}$$
  
 $R_{eq3} = 1000\Omega + 298.855\Omega$   
 $R_{eq3} = 1298.855\Omega$ 

$$V_{R5} = \left(\frac{R_5}{R_{eq3}}\right) \cdot V$$

$$V_{R5} = \left(\frac{1000\Omega}{1298.855\Omega}\right) \cdot 4.35 V$$

$$V_{R5} = 3.349 V$$

$$I_{R5} = \left(\frac{V}{R_{eq3}}\right)$$

$$I_{R5} = \left(\frac{4.35 V}{1298.855\Omega}\right)$$

$$I_{R5} = 3.349 A$$